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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,883	12/17/2001	Hiroyuki Okuyama	112857-307	6182
29175	7590	01/29/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			BREWSTER, WILLIAM M	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,883

Applicant(s)

OKUYAMA ET AL.

Examiner

William M. Brewster

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 and 32-37 is/are allowed.
- 6) ☒ Claim(s) 38-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 38-40, 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Horino et al., U.S. Patent No. 6,072,197.

Horino anticipates a method of producing a semiconductor light emitting device comprising: in fig. 5A, a substrate 34 comprising a substrate layer composed of a wurtzite compound, col. 1, lines 39 - 49, formed along a principal plane of the substrate wherein the layer includes a different in-height portion formed in a surface of the substrate layer; a crystal growth layer 12 formed on the surface of the wurtzite compound substrate layer at least a portion of the crystal growth layer is oriented along an inclined plane that is inclined with respect to the principal plane, wherein the inclined plane selected from the group consisting of an S-plane, a {11-22} plane and planes substantially equivalent thereto: (1 400) and (11 21) planes, col. 15, lines 38-48, wherein the crystal growth layer is grown at a temperature of about 1100° C or less, col. 16, lines 24 - 43, and wherein the growth of the crystal growth layer depends on a shape of the difference-in-height portion; a first conductive layer 13, an active layer 14

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and a second conductive layer 15 formed on the crystal growth layer in a sequentially stacked arrangement oriented along two or more planes of the crystal growth layer, col. 15, lines 13-30, including the inclined plane such that one or more light emission regions are formed; and one or more electrodes separately formed in the light emission regions, col. 15, lines 12 - 57.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 41, 42, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horino as applied to claims 38-40, 43 above, and further in view of Wolf, V. I.

Horino does not state a pressure, it is reasonable that the flow rates of 2-100 $\mu\text{mol/min.}$, col. 16, lines 31-34, would encompass about 100 Torr or more.

Horino does not specify how he forms their electrodes, but Wolf, V. I., pp. 535-6, does present a way of forming electrodes using the lift off technique. Wolf in fig. 17 forms a first mask material layer, forming a first window region in the first mask material layer, and forming a first electrode layer through the first window region; and may also forming a second mask material layer, forming a second window region in the second mask material layer at a position different from that of the first window region, and forming a second electrode layer through the second window region; limitations from

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claim 34: forming a resist layer, and forming a specific pattern of an electrode layer by a lift-off process; limitations from claim 35: on the drawings on the right side of fig. 17, forming a resist layer (or polymer) having a window region, forming an electrode layer to cover said resist layer including an inner region of said window region, and removing said resist layer together with said electrode layer excluding an electrode portion formed on a bottom region of the window region by a lift off process, pp. 535-6. Wolf gives motivation in p. 535, ¶ 4. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize that combining Wolf's process with Horino's invention would have been beneficial because hard to remove residues are avoided.

Allowable Subject Matter

Claims 30, 32-37 are allowed. Claim 30, lines 10-16, "forming a first mask . . . second electrode layer" cannot be found in the prior art of record.

Response to Arguments

Applicant's arguments filed 12 September 2003 have been fully considered but they are not persuasive. Applicant argues Nunoue and Horino cannot be combined. Examiner, reviewing the references in view of the new claims has determined that Horino contains all the limitations for independent claim 38. As for the dependent claims, all devices must have input and output electrodes, and Horino, illustrating only a portion for a device, certainly allows the practitioner too configure more electrodes in

her chip as design criteria dictate. Further adjusting the input variables of current is always possible, based on design needs, resulting in a variance of output for wavelength and amplitude.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

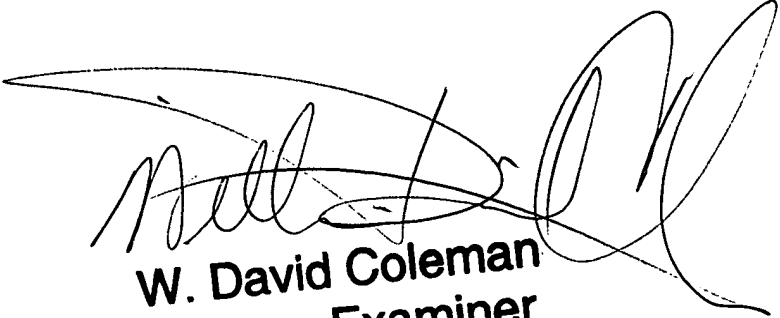
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William M. Brewster whose telephone number is 703-305-5906. The examiner can normally be reached on Full Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

WB
January 27, 2004



W. David Coleman
Primary Examiner
Tech Center 2800